

## **REMARKS**

### **Status of the Claims**

Claims 1-26 and 29-31 are pending in the present application. Claims 1-22 are withdrawn as directed to a non-elected invention. Claims 27 and 32 were previously cancelled. In view of the following remarks, reconsideration of the present application is respectfully requested.

### **Priority Under 35 U.S.C. § 119**

Applicants thank the Examiner for acknowledging Applicants' claim for foreign priority under 35 U.S.C. § 119, and receipt of the certified priority document.

### **Issues under 35 U.S.C. §103(a)**

Claims 23-26 are rejected under 35 U.S.C. § 103(a) as allegedly obvious over U.S. Publication No. 2005/0112033 to Zhang *et al.* ("033 publication") in view of U.S. Publication No. 2003/0032002 to Want *et al.*, ("002 publication"), *see Office Action*, pages 3-7, items 10-19.

Claims 29-31 are also rejected under 35 U.S.C. § 103(a) as allegedly obvious over the '033 publication and the '002 publication in view of U.S. Publication No. 2004/0191924 to Hunter *et al.*, ("924 publication"), *see Office Action*, pages 7-8, items 20-26.

These rejections are respectfully traversed.

#### *Basis for the Rejection*

The Examiner alleges that the '033 publication expressly teaches all but one of the structural elements of the instant claims. In particular, the Examiner states that the '033 publication teaches a micro-well array made of silicon, having multiple microwells. The Examiner further indicates that the '033 publication teaches that the interior surfaces of the microwells are coated with TEFLON™, a fluorocarbon film, *see Office Action*, page 5 and paragraph [0067] of the '033 publication. The Examiner acknowledges, however, that the '033 publication fails to expressly describe a microwell, which is sized and shaped to hold a single organic cell. Nevertheless, the Examiner believes that the '002 publication remedies this deficiency.

According to the Examiner, the '002 publication teaches a microtiter plate for the isolation and screening of cells, which includes wells, which are dimensioned such that they permit only a

single cell to settle into the well. The Examiner states that an ordinary artisan would have modified the microwells described in the '033 publication to the dimensions described in the '002 publication to hold only one cell. The Examiner believes that an ordinary artisan would have been motivated to make this modification in order to isolate and detect the biological activity of a cell as described in the abstract of the '002 publication. The '924 publication is merely cited for teaching hydrophobic regions surrounding wells.

*The Office Action has failed to establish a prima facie case of obviousness*

In the United States, it is improper to combine references where the references teach away from their combination, *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). For the reasons set forth below, Applicants submit that the '002 publication teaches away from coating the interior surface of a single cell sized microwell with a hydrophobic agent, such as TEFLON™, since the '002 publication indicates that this coating would not ensure that cells are isolated in the microwell. Accordingly, it would be improper to combine the teachings regarding the single cell sized microwell of the '002 publication with the teachings regarding the micro-well array described in the '033 publication.

In particular, the '002 publication teaches a cell isolation region, **20a**, that is defined by a microwell portion **52** that may adjoin accessory delivery portions, including a conical portion, **51**, *see* paragraph [0043], lines 8-11 and Figure 9b of the '002 publication. The '002 publication further states that the "cell isolation device **10a** (whether designed to isolate a single cell or a group of cells) may be exposed to differential surface treatment in order to ensure that cells are isolated in cell isolation region **20a**", *see* paragraph [0050]. In addition, the '002 publication states that the "area of housing **11** surrounding cell isolation region **20a** may be treated to reduce protein adhesion [with, for example, TEFLON™] while cell isolation regions **20a** may be treated to provide a more hydrophilic environment. The hydrophilic nature of cell isolation region **20a** versus the surrounding hydrophobic housing **11** would favor the beading of liquid containing cells in cell isolation region **20a** and potentially hold cells **30** in place, limiting the exhibition of biological activity...to the "wet" areas", *see* paragraph [0050] of the '002 publication.

In view of the foregoing, Applicants submit that it is improper to combine the '002 publication with the '033 publication. As noted above, the '033 publication states that the wells may be coated with TEFLON™. However, the '002 publication indicates that, if a surface

treatment is to be used for a single cell sized microwell interior surface, the surface treatment is advisably hydrophilic. That is, the '002 publication teaches away from isolating cells using a single cell sized microwell having a hydrophobic interior surface since such a surface would not "ensure" that the cells are isolated in the microwell. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established. Accordingly, reconsideration and withdrawal of this rejection are respectfully requested.

### CONCLUSION

In view of the above remarks, Applicants believe the present application is in condition for allowance.

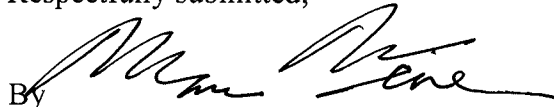
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Linda T. Parker, Ph.D., Registration No. 46,046 at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

DEC 10 2010

Dated: \_\_\_\_\_

Respectfully submitted,

By 

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